



#12/5-20-03

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Charles B. Greenberg et al.

Serial No. 10/075,316

Filed: February 14, 2002

For: PHOTOCATALYTICALLY-ACTIVATED  
SELF-CLEANING ARTICLE AND  
METHOD OF MAKING SAME

PATENT APPLICATION

Group Art Unit: 1731

Examiner: S. Vincent

Atty Docket No. 1240D2/RC

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TC 1700

INFORMATION DISCLOSURE STATEMENT

Mail Stop Patent Application  
Commissioner for Patents  
Alexandria, VA 22313-1450

Sir:

The documents listed on the attached Form PTO-1449 are brought to the attention of the United States Patent and Trademark Office with respect to the application identified above in accordance with the provisions of 37 CFR 1.56, 1.97, and 1.98. Copies of the documents listed are enclosed herewith.

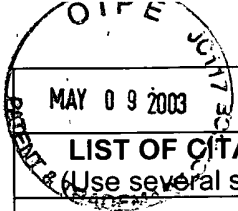
In addition, counsel for Pilkington P.L.C. has notified Applicants' counsel that Pilkington P.L.C. has copied the claims of PPG's U.S. Patent No. 6,413,581 B1, in an effort to provoke an interference. The instant application claims priority from U.S. Patent No. 6,413,581B1. Applicants believe, but cannot confirm, that the application containing the copied claims is U.S. Application No. 09/662,181, which is believed to be related to U.S. Patent No. 6,238,738 B1 cited in the Supplemental Information Disclosure Statement filed October 17, 2002.

Respectfully submitted,

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Pittsburgh, Pennsylvania  
May 9, 2003

		Atty. Docket No. 1240D2/RC	Serial No. 10/075,316
<b>LIST OF CITATIONS BY APPLICANT</b> (Use several sheets if necessary)		Applicant Charles B. Greenberg et al.	
		Filing Date February 14, 2002	Group 1731

## U.S. PATENT DOCUMENTS

Exam. Init.		Document No.	Date	Name	Class	Subclass	Filing Date if appropriate
	AA	3,630,796	12/71	Yokozawa et al.			
	AB	4,017,661	4/77	Gillery			
	AC	4,238,276	12/80	Kinugawa et al.			
	AD	4,485,146	11/84	Mizubishi et al.			
	AE	4,544,470	10/85	Hetrick			
	AF	4,888,038	12/89	Herrington et al.			
	AG	4,892,712	1/90	Robertson et al.			
	AH	5,028,568	7/91	Anderson et al.			
	AI	5,032,241	7/91	Robertson et al.			
	AJ	5,035,784	6/91	Anderson et al.			
	AK	5,304,394	4/94	Sauvinet et al.			

## FOREIGN PATENT DOCUMENTS

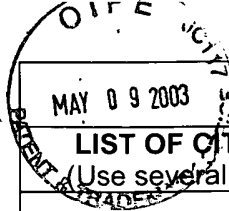
		Document No.	Date	Country	Class	Subclass	Translation	
							Yes	No
	AL	0 544 577	6/93	EP (English abstract)				X
	AM	7-99425	3/95	Japan			X	
	AN	7-117600	4/95	Japan			X	
	AO	7-182019	6/95	Japan			X	
	AP	7-182020	6/95	Japan			X	
	AQ	7-205019	7/95	Japan			X	

## OTHER CITATIONS (Including Author, Title, Date, Pertinent Pages, Etc.)

	AR	D. R. Uhlmann, "Glass: Science and Technology", Vol. 2, Processing I, pages 253-284 (1984)
	AS	GlassFAQs, Glass FACTS.com, pg 1-5
	AT	JP 88-158890, Abstract Only, Derwent JP 860243762, "Glass Article Difficult Soil Coating Thin Titanium Dioxide Coating Contain Platinum@Rhodium Palladium@.

Examiner	Date Considered
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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**U.S. PATENT DOCUMENTS**

Exam. Init.		Document No.	Date	Name	Class	Subclass	Filing Date if appropriate
	AA	5,308,805	5/94	Baker et al.			
	AB	5,342,676	8/94	Zagdoun			
	AC	5,368,892	11/94	Berquier			
	AD	5,389,427	2/95	Berquier			
	AE	5,478,783	12/95	Higby et al.			
	AF	5,525,406	6/96	Goodman et al.			
	AG	5,854,169	12/98	Heller et al.			
	AH	5,618,579	4/97	Boire et al.			
	AI	5,698,262	12/97	Soubeyrand et al.			
	AJ	5,735,922	4/98	Woodward et al.			
	AK	5,745,291	4/98	Jenkinson			

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MAY 14 2003  
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**FOREIGN PATENT DOCUMENTS**

		Document No.	Date	Country	Class	Subclass	Translation	
							Yes	No
	AL	0 071 865	2/83	EP				
	AM	96/13327	5/96	WIPO (6,387,844)				X
	AN	96/29375	9/96	WIPO (English abstract)				X
	AO	9-173783	7/97	Japan (English abstract)				X
	AP	9-227157	9/97	Japan (English abstract)				X
	AQ	9-227158	9/97	Japan (English abstract)				X

**OTHER CITATIONS (Including Author, Title, Date, Pertinent Pages, Etc.)**

AR	Chemical Abstracts, 116 89812a, Sokolov, et al. "Selective Activation of Smooth Surfaces of Glass and Ceramic Articles Before Chemical Metalization," Abstract only
AS	K. Hashimoto et al., TiO <sub>2</sub> Coated Glass with Self-Cleaning Function, Kagaku To Kogyo (Chemistry and Industry), vol. 48, No. 10, p. 1256-1258 (1995)
AT	04/03/00 Letter From Mrs. Colette Ward, Patent Litigation Enquiries, British Library

Examiner	Date Considered
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		Filing Date February 14, 2002	Group 1731

**U.S. PATENT DOCUMENTS**

Exam. Init.		Document No.	Date	Name	Class	Subclass	Filing Date if appropriate
	AA	5,749,931	5/98	Goodman et al.			
	AB	5,751,484	5/98	Goodman et al.			
	AC	5,755,845	5/98	Woodward et al.			
	AD	5,764,415	6/98	Nelson et al.			
	AE	5,773,086	6/98	McCurdy et al.			
	AF	5,939,201	8/99	Boire et al.			
	AG	5,961,843	10/99	Hayakawa et al.			
	AH	6,001,462	12/99	Purvis et al.			
	AI	6,045,896	4/00	Boire et al.			
	AJ	6,068,914	5/00	Boire et al.			
	AK	6,103,360	8/00	Caldwell et al.			

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TC 1700

**FOREIGN PATENT DOCUMENTS**

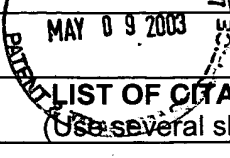
		Document No.	Date	Country	Class	Subclass	Translation Yes No
	AL	9-235140	9/97	Japan (English abstract)			X
	AM	98/06510	2/98	WIPO			
	AN	2 320 499	6/98	Great Britain			
	AO	2 320 503	6/98	Great Britain			
	AP	2 324 098	10/98	Great Britain			
	AQ	9-241037	2/99	Japan (English abstract)			X

**OTHER CITATIONS (Including Author, Title, Date, Pertinent Pages, Etc.)**

AR	Robert J. Good et al. The Modern Theory of Contact Angles and the Hydrogen Bond Components of Surface Energies in Modern Approaches to Wettability, Theory and Applications, pp 1-3, Schrader et al. Eds.
AS	H. H. Dunken, Glass Surfaces, Treatise on Materials Science and Technology, Vo. 22, pp. 1-75, 1982
AT	The Japan Times, May 21, 2002, Tuesday, Race for Technology, pp. 2-5, from LexisNexis

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----------	-----------------

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Exam. Init.		Document No.	Date	Name	Class	Subclass	Filing Date if appropriate
	AA	6,106,955	8/00	Ogawa et al.			
	AB	6,210,779	4/01	Watanabe et al.			
	AC	6,228,480	5/01	Kimura et al.			
	AD	6,322,881	11/01	Boire et al.			
	AE	6,326,079	12/01	Philippe et al.			
	AF	6,387,844	5/02	Fujishima et al.			
	AG	5,165,972	11/92	Porter			
	AH	4,898,789	2/90	Finley			
	AI	6,294,246	9/01	Watanabe et al.			
	AJ	6,294,247	9/01	Watanabe et al.			
	AK						

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MAY 14 2003  
TC 1700

**FOREIGN PATENT DOCUMENTS**

		Document No.	Date	Country	Class	Subclass	Translation Yes No	
	AL	01/10790	2/01	WIPO				
	AM	2 355 273	4/01	Great Britain				
	AN	01/72652	10/01	WIPO				
	AO	0 816 466	1/98	EP				
	AP	0 650 938	5/95	EP				
	AQ	2 031 756	4/80	Great Britain				

**OTHER CITATIONS (Including Author, Title, Date, Pertinent Pages, Etc.)**

AR	Yusumori et al., Preparation of TiO <sub>2</sub> Fine Particles Supported on Silica Gel as Photocatalyst, Journal of the Ceramic Society of Japan, 102 (1994) pp. 702-707
AS	Wold; Photocatalytic Properties of TiO <sub>2</sub> , Chem. Mater., 1993, 5, pp. 280-283
AT	Bach et al.; Kristallstruktur und Optische Eigenschaften von Dunnen Organogenen Titanoxyd-Schichten Auf Glasunterlagen [Crystal Structure and Optical Properties of Thin Organogenic Titanium Oxide Layers on Glass Substrates], Thin Solid Films 1 (1967/68), pp. 255-276,

Examiner	Date Considered
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	AA						
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**FOREIGN PATENT DOCUMENTS**

		Document No.	Date	Country	Class	Subclass	Translation	
							Yes	No
	AL	0 348 185	12/89	EP				
	AM	0 633 064	1/95	EP				
	AN	0 675 086	10/95	EP				
	AO	0 489 621	6/92	EP				
	AP	95/15816	6/95	WIPO				
	AQ	7-3463	1/95	Japan (English abstract)				X

**OTHER CITATIONS (Including Author, Title, Date, Pertinent Pages, Etc.)**

AR	Meng et al.; The Effect of Substrate Temperature on the Properties of Sputtered Titanium Oxide Films, Applied Surface Science 65/66 (1993) pp. 235-239
AS	Yoko et al.; Sol-Gel-Derived TiO <sub>2</sub> Film Semiconductor Electrode for Photocleavage of Water, J. Electrochem Soc., vol. 138(8), Aug. 1991, pp. 2279-2284
AT	Oxide Layers Deposited from Organic Solutions, H. Schroeder in Physics of Thin Films: Advances in Research and Development, pp. 105-112, vol. 5, 1969 Academic Press

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----------	-----------------

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		Document No.	Date	Country	Class	Subclass	Translation	
							Yes	No
	AL	7-2548	1/95	Japan (English abstract)				X
	AM	11-512337	10/99	Japan (English abstract)				X
	AN	9-173775	7/97	Japan (English abstract)				X
	AO	10-146530	6/98	Japan (English abstract)				X
	AP							
	AQ							

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